Failure of INSAT-2D

308. SHRI NARENDRA MOHAN: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that there was a helium tank leakage before the launching of INSAT-2DR

(b) if so, whether due notice was taken of the same or the launch of INSAT-2D was undertaken ignoring this leakage;

(c) whether this leakage contributed to the problem of INSAT-2D after the launch, or any other causes were responsible for this; and

(d) if so, the main causes of the failure of INSAT-2D and what corrective steps have been taken to ensure that such a situation does not recur?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) to (d) Indian National Satellite-2D (INSAT-2D) was successfully launched on June 4, 1997 without any hitch in the right orbit and was working satisfactorily till September 30, 1997. On October 1, 1997, an unexpected massive short circuit in the power system was observed. The satellite was observed to generate only 25 to 30% of the rated power. The south solar array which is required to track the sun was found to be stuck in one position. The non-availability of sufficient on-board power created consequential difficulties in the thermal management of the spacecraft which in turn led to the malfunctioning of the propellant system of the spacecraft. This in turn resulted in depletion of fuel and the satellite was declared inoperable on October 5, 1997.

Several technical committees have been set up to carryout detailed analysis of the failure. A senior level Committee with technical experts drawn from several academic and R&D institutions has also been set up. The Committee is expected to complete its task by January, 1998.

A detailed component level and circuit level review of the power system is being carried out. if any deficiencies come to light, appropriate modifications will be carried out in the future satellites. Further, the mechanisms for process control during fabrication and also the quality audit are being strengthened.

Proposal to launch IRS-1D

309. SHRI GHUFRAN AZAM: Will the PRIME MINISTER be pleased to state:

(a) whether Government propose to launch IRS-1D a Korean satellite and also propose to contact to lease out 11C-band transponders to INTELSAT;

(b) if so, the details thereof;

(c) whether plans to launch satellite with the help of foreign countries will affect our indigenous production;

(d) if so, the reaction of Government thereto?

THE MINISTER OF STATE IN THE MINISTRY OF' SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) and (b) Indian Remote Sensing Satellite-ID (IRS-1D) has been launched into polar orbit by Polar Satellite Launch Vehicle-Cl (PSLV-C1) on 29th September 1997 and the satellite is working well. Preparations-for the next flight PSLV-C2 have commenced. In addition to the Indian satellite IRS-P4, it will carry KITS AT 3 of South Korea.

KITSAT-3 is the first foreign satellite to be launched by PSLV on a commercial basis.

A contract has been signed with M/s. International Telecommunications Satellite Organisation (INTELSAT) for the lease of 11 transponders of 36 MHz capacity on commercial terms using INSAT-2E. The period of lease is ten years and the value of the contract is around US Dollars One Hundred Million.